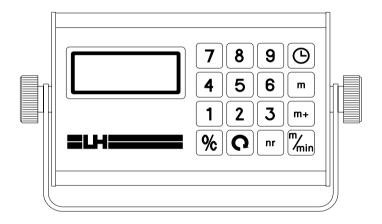
OPERATOR MANUAL FOREST LOGGER



LH Technologies Denmark ApS

Mølhavevej 2 9440 Aabybro Denmark

Tel. +45 9696 2500 Fax. +45 9696 2501

Internet: www.lh-agro.com

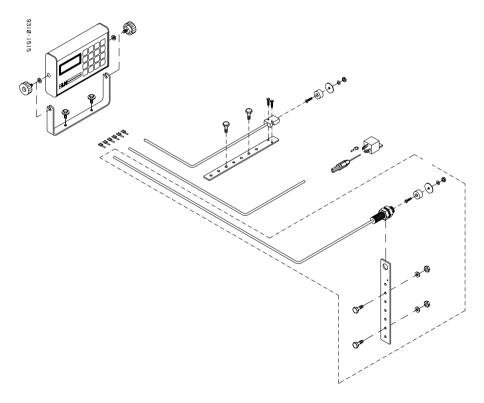
LH FOREST LOGGER IS A VERY EASILY OPERATEABLE MONITOR WHICH IS ABLE TO MEASURE THE FOLLOWING:

- * Forward speed m/min
- * Distance in metres (trip and total) (5 registers)
- * Time

All encoded and gathered data are stored in the memory, also if power, deliberately or not, is cut off.

DESCRIPTION OF THE SYSTEM

The below illustration shows the **FOREST LOGGER** system with electronic box and sensors.



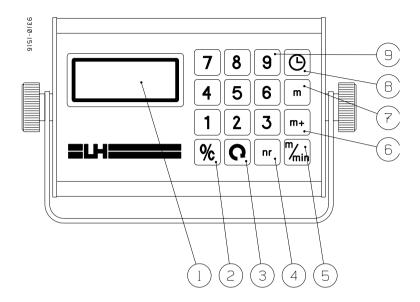
FOREST LOGGER: Electronic box with operation, display and sensor connections.

Speed sensor: The sensor sends an electric signal to the **FOREST LOGGER**

each time a magnet passes the sensor.

3

FUNCTION KEYS



- 1. Display
- 2. Zeroing of time, metre trip and metre total
- 3. Calibration of speed sensor
- 4. Job register choise
- 5. Speed
- 6. Metre counter total
- 7. Metre counter trip
- 8. Time consumption in hours and minutes
- 9. Keyboard



STOP WATCH

TIME CONSUMPTION IN HOURS AND MINUTES.

When pressing this function key time spent in hours and minutes appears (max 99 hours and 59 minutes). The time counter concerns the job number in question. Thus the time counter may show different time consumption for the various registers.

The time counter can be started and stopped by repeated presses on the key.

Flashing colon means that the time counter is on. Constant colon means that the time

counter is off. The time counter can be zeroed by pressing the $\left| \begin{array}{c} \bullet \\ \bullet \end{array} \right|$ key for min. 3 seconds.



m

METRE COUNTER, TRIP

By pressing this key the function key will show the driven distance up to 9999 metres. At 9999 metres it is zeroed automatically. The function goes for the job number in question. Thus the metre counter may show different values for the various registers.

The metre counter can be stopped by pressing the $\frac{m}{min}$ key.



NB: The metre counter will only be switched off if the function m/min ist shown in the display. If not, press the $\boxed{\mathbf{m}_{\min}}$ key twice.

In the m/min function a "r" appears when the meter counter is stopped.

The metre trip counter is zeroed by pressing the $\left| \begin{array}{c} \mathbf{\mathcal{V}} \\ \end{array} \right|$ key for min. 2 seconds.



m+

METER COUNTER, TOTAL

When pressing this function key the total counter shows the driven distance in metres up to 9999 metres. After this the distance is shown in km with 2 decimals from 10.00 km to 65.53 km. The function goes for the job number in question. Thus the meter counter may show different values for the various registers.

The metre counter can be stopped by pressing the min key.



NB: The meter counter will only be stopped if the function m/min is shown in the

display. If not, press the m/min $\left| \begin{array}{c} \mathbf{m} \\ \mathbf{min} \end{array} \right|$ key twice.

In the m/min function a "r" appears when the metre counter is stopped.

The metre total counter is zeroed by pressing the $\left| \begin{array}{c} \mathbf{\%} \end{array} \right|$ key for min. 2 seconds.





SPEED METER

When pressing this function key the current speed in metres per minute appears. If speed exceeds 99 m/min, say for road transport, speed is shown in km/h. FOREST LOGGER always shows speed when turned on.

When speed (m/min or km/h) is displayed the meter counter can be stopped and started

by pressing the min key.

When the meter counter is stopped a "r" appears left in the display. When the meter counter is started the "r" disappears from the display. In stead the number of the current job register is shown to the left.

For display of km/h (over 99 m/min) the register number is not shown. A "r" is displayed if the metre counter is off.

nr JOB NUMBER

This function controls the metre trip and the metre total counter for 5 registers.

Press the $\left(\begin{array}{c} \mathbf{nr} \end{array}\right)$ key.

The display may say "No. 1".

The register number can be changed by pressing 1, 2, 3, 4 or 5.

When the monitor is switched on it continues to work in the same register as when it was turned off.



SPEED CALIBRATION

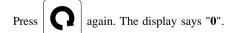
When the **FOREST LOGGER** is mounted the speed sensor at prop shaft or wheel must be calibrated.

The **FOREST LOGGER** is able to calculate the correct wheel circumference automatically by driving 100 metres. For this method do as follows:



The encoded value appears.





Drive a distance of 100 metres **measured in advance**. In the display number of pulses from the sensor now appears. Check that the pulses exceed 100. If not no auto-calibration will be made.

Stop at the 100 make and press



again. The correct wheel circumference in cm

and mm (say 24.3) has now been set in the monitor.

If wheel circumference exceeds 100.0 cm (for instance at sensor mounted on wheel) a wheel circumference up to 300.0 cm can be programmed. This requires another sensor type.

(LH No. 11-930-982).

Do as follows:

Mark out in the field and on the tyre. Drive till the wheel has made 10 revolutions. Mark out in the field again. Measure the distance between the two marks. Divide the distance by 10 (wheel revolutions). Divide the wheel circumference by the number of magnets mounted.

ERROR LOCALISATION

If it is suspected that one of the sensors is not operating correctly the system can be checked as follows:

Encode a wheel circumference



of 222.2

Press the time function.



FOREST LOGGER will now show:

"h" when speed sensor is activated.

"r" when the metre counter is switched off. (If external sensor is used).